

City of Wilmington Red Light Camera Program



Why *SafeLight*?

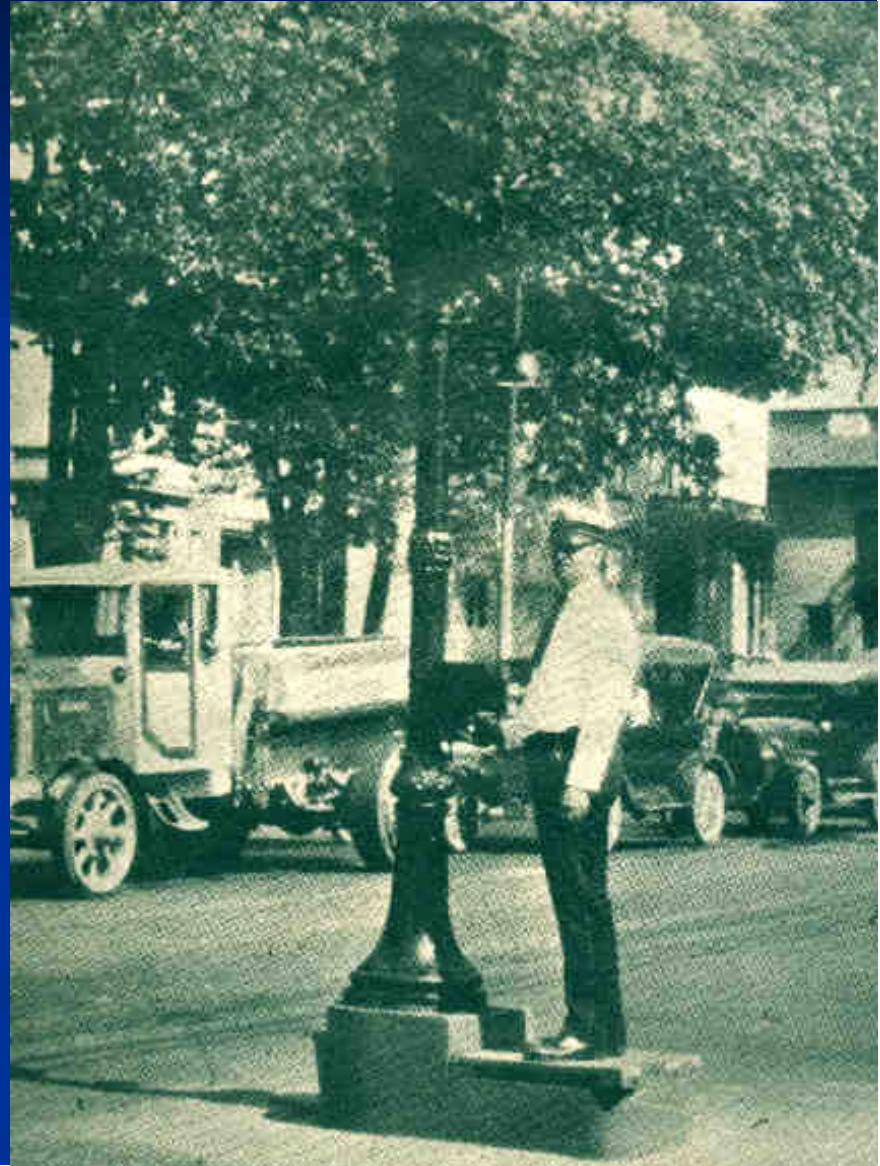
- 800 killed in U.S. annually by RLR
- 15% increase in fatal collisions during past 4 years
- RLR causes 20% of crashes at signalized intersections
- 47% injury rate versus 33%
- 1200 angle collisions/year in Wilmington
- Cost: \$90 million



Why *SafeLight*?

- Top fifteen intersections
200+ collisions/year...
- More than 50 violations/day at
some approaches...
- 190 traffic signals in City...

...You get the idea



Why *SafeLight*?

- Little stigma attached to red light running
- RLR are more likely to:
 - be male, younger than 30
 - have a record of moving violations
 - drive w/out license
 - not wear a seat belt
 - have consumed alcohol
 - follow too closely
 - be in a hurry



SafeLight Objectives

- Reduce injuries
- Reduce property damage
- Reduce violations
- Free police for other problems



Implementation

- First camera live on March 15, 2000
- 15 cameras
- 24/7 operation
- Issue 24,000 citations annually
- Deter violations vs. send citations



Intersections

- Collision history
- Police input
- Violation counts
- Engineering countermeasures
 - Coordination
 - Sight distance
 - Near-side heads
 - LED displays



SafeLight Citations

- 0.2 second delay
- 3 images
- \$50 civil fine
- \$50 late penalty
- No driver license points or insurance increase

CITY OF WILMINGTON
RED LIGHT CAMERA PROGRAM
P.O. Box 4835, Wilmington, NC 28406 (910) 344-2858

SafeLight
Wilmington

NOTICE OF CITATION

MAIL DATE: 05/23/00 Citation Number: 00-00000560 Violation Location: 3rd St & Jordan St Eastbound

0000000000 000000 00-2

██████████
██████████
WILMINGTON, NC 28412

SafeLight Wilmington
P.O. Box 4835
Wilmington, NC 28406




Payment Due Date: 06/15/2000 Amount Due: \$0.00 Amount Paid: \$

Citation Number: 00-00000560
Plate: NC

On 5/19/2000 3:54 PM your vehicle was photographed. Images are shown to the right through an intersection in which the traffic signal was red, in violation of Wilmington City Code Section 5-46.3. The civil penalty for this violation is \$50.00. No points will be assessed against your driving record as a result of this violation. Please see reverse side for payment options.

At the time of the violation, your vehicle was traveling at 45.00 MPH. Please understand that speed kills you. See Data Block Sample on the reverse side for a description of the information shown above the photographs.

05/23/00 00-00000560



Citation Appeals

- Transfer of responsibility
- <1% of citations appealed
- 15% of appeals dismissed
- Superior Court
- Excuses, excuses, excuses
- Big Brother?



Collision Results

- Total collisions *before*: 625
- Total collisions *after*: 434
 - Variance: 31%
- Angle collisions *before*: 248
- Angle collisions *after*: 157
 - Variance: 37%
- Left turn collisions *before*: 41
- Left turn collisions *after*: 38
 - Variance: 7%
- Rear end collisions *before*: 211
- Rear end collisions *after*: 151
 - Variance: 28%

36 month totals for 10 locations

Collisions within 75-ft of intersection, all approaches

County-wide variance -3%

Data also sorted by location, approach

Some study of control locations

Not a statistical analysis



Injury Results

- Total injuries *before*: 510
- Total injuries *after*: 312
 - Variance: 39%
- F *before*: 0
- F *after*: 0
- A *before*: 17
- A *after*: 5
- B *before*: 85
- B *after*: 57
- C *before*: 408
- C *after*: 250

County-wide variance: -17%

F = fatal injury

A = disabling injury

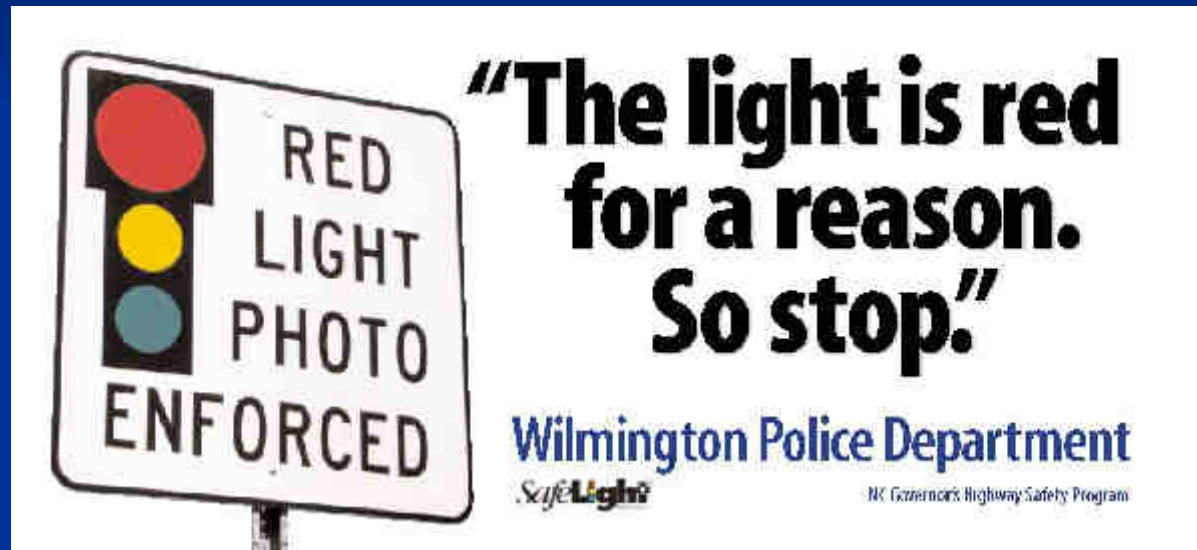
B = evident injury

C = possible injury



Promoting Public Awareness

- *SafeLight* branding
- Joint efforts with other cities
- Joint efforts with trauma services
- Billboard
- GTV videos
- Annual Report
- Media relations



Program Management

- Fully outsourced
- Hardware & processing by Peek Traffic, Inc.
- Funded by violators
- City oversight
- Current status



Public Perceptions of *SafeLight*

- 88% of Wilmington residents agree *SafeLight* reduces red light running
- About half admit to running a red light
- 90% support use of red light cameras



Source: MarketWise, 2001

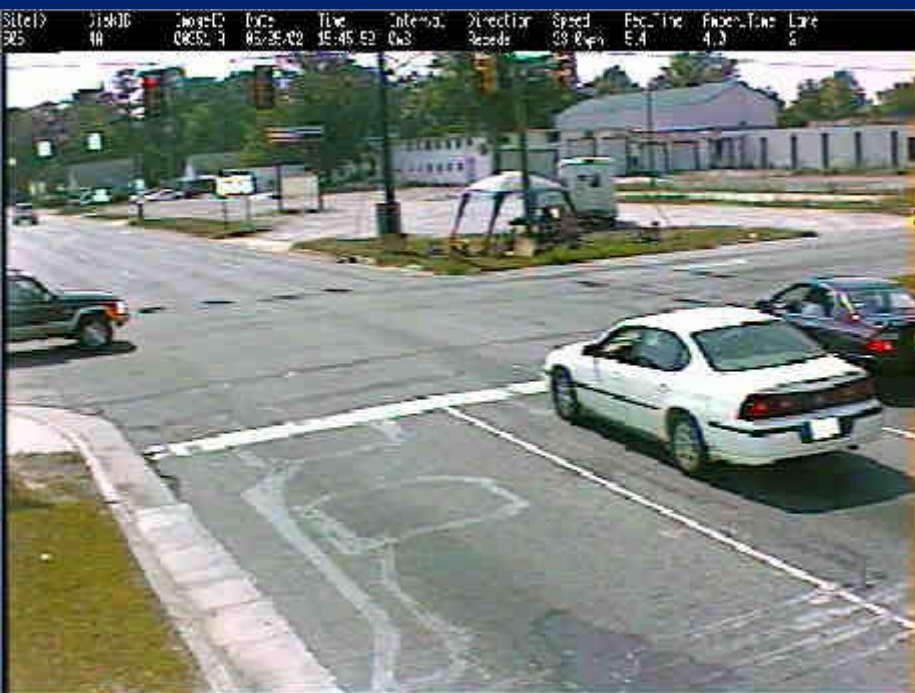
Signal Red Time at Violation

Red Duration	Percentage of Violations
< 0.5 second	35%
0.5 – 0.9 seconds	43%
1.0 – 1.9 seconds	16%
2.0 – 2.9 seconds	2%
3.0 – 4.9 seconds	1%
5.0 – 9.9 seconds	1%
10+ seconds	2%

SiteID	DiskID	ImageID	Date	Time	Interval	Direction	Speed	Red_Time	Amber_Time	Lane
505	1A	01109 B	06/17/01	19:46:36	401ms	Recede	79.0mph	1.4	4.4	2









Questions?